

INDUCTION COILS: HOW TO MAKE AND USE THEM

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649025572

Induction Coils: How to Make and Use Them by Percival Marshall & Kurt Stoye

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PERCIVAL MARSHALL & KURT STOYE

**INDUCTION COILS:
HOW TO MAKE
AND USE THEM**

INDUCTION COILS

How to Make and Use Them.

*A Practical Handbook on the Construction and Use
of Medical and Spark Coils.*

BY

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Thoroughly revised and enlarged by

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FOURTH THOUSAND.

NEW YORK
SPON & CHAMBERLAIN, 123 LIBERTY STREET
1908.

Copyright, 1906, at Washington, D. C.
By SPON & CHAMBEPLAIN

Entered at Stationers' Hall, London

Press of McILROY & EMMET, 22 Thames St, New York, U.S.A.

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PREFACE TO REVISED EDITION.

In revising this excellent little English book, one of the *Model Engineer Series*, Mr. Kurt Stoye found it necessary to make many changes especially as to gauges and prices; to add additional matter in numerous places including full detailed instructions for making a new form of Electrolytic Interrupter, with illustration, also two new tables specially compiled for this work showing specifications of materials required for coils giving sparks from $\frac{1}{4}$ in. up to 12 inches, and in every way making this work a most up-to-date and practical American book.

THE PUBLISHERS.

September, 1906.

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PREFACE.

The induction coil has always been a popular piece of apparatus with amateurs and students interested in electrical science, so numerous and so fascinating are the experiments which can be performed with its aid. Its practical importance has, moreover, been considerably enhanced in recent years by its application to such useful purposes as X-ray work, wireless telegraphy, and the ignition of the charge in internal combustion engines, such as the petrol motors now so extensively used for cycles and automobiles. In the following pages we have adhered to the lines usually adopted in this series of handbooks, and have commenced by giving sufficient theoretical information to enable the reader to understand the various principles involved in the design and construction of satisfactory apparatus. This is followed by descriptions of the methods of building coils for various purposes, and in a later chapter tables of dimensions are given which will enable the reader to construct a coil of any size, within limits, to suit his own special requirements, if

these are not met by the coils described in detail in the earlier chapters. The concluding section on experiments with induction coils will be of interest, as showing some of the methods by which the reader can derive both instruction and amusement from the coil he has made. It is, of course, impossible within the limits of so small a book to deal exhaustively with this portion of the subject, but the hints given will serve to direct the attention of the intelligent student to many opportunities for carrying out attractive experiments and investigations which the possession of a well made coil affords.

PERCIVAL MARSHALL.

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ABBREVIATIONS USED IN BOOK.

B. & S.	= Brown & Sharpe wire gauge.
S. C. C.	= Single cotton covered wire.
D. C. C.	= Double cotton covered wire.
S. S. C.	= Single silk covered wire.
D. S. C.	= Double silk covered wire.